

Specification MAP/CV1044/Issue 5 Dated 24.1.49 To be read in conjunction with K1001.	<u>SECURITY</u>	
	<u>Specification</u> RESTRICTED	<u>Valve</u> UNCLASSIFIED

→ Indicates a change

<u>TYPE OF VALVE:</u> Double diode triode		<u>MARKING</u> See K.1001/4		
<u>CATHODE:</u> Directly heated		<u>PACKING</u> See K.1005		
<u>ENVELOPE:</u> Glass - Metallised				
<u>PROTOTYPE:</u> 210 DDT				
<u>RATING</u>		<u>BASE</u> B5		
Filament Voltage (V)	2.0	Note	Pin	
Filament Current (A)	0.1			
Max. Anode Voltage with Zero Anode Current (V)	150	A	Electrode	
Max. Anode Dissipation (W)	1.0		1 Anode	
Max. Cathode Current (mA)	10		2 Diode 1	
Max. Peak Cathode Current (mA)	20		3 Filament -ve and metallising	
Max. Grid Resistance (MΩ)	2		4 Filament +ve	
Mutual Conductance (mA/V)	1.2		5 Diode 2	
Amplification Factor	28		T.C. Grid	
Anode Impedance (Ω)	23,000		A	
<u>Diode Section</u>			<u>PLUG TOP CAP</u> See K.1001/AI/D5.1.	
Max. Working Anode Voltage (RMS)	30		<u>DIMENSIONS</u> See K.1001/AI/D1.	
Max. Cathode Current (μA)	250	Dimension		
Max. Peak Cathode Current (μA)	500			
<u>CAPACITANCES (pF)</u>		Min.	Max.	
Cgc	2.4	A (mm)	118	
Cac	6.5		B (mm)	124
Cag	2.3	-		
Cd1c	3.1	46		
Cd2c	2.8			
Cd1d2	0.4			
<u>NOTE</u>				
A: $V_a = 100V, V_g = 0.$				

TESTS

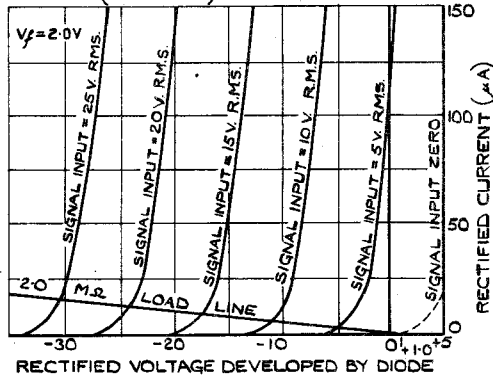
To be performed in addition to those applicable in K.1001.

Test Conditions							Test	Limits		No. Tested
	Vf	Va	Vg	Vd2	Vd1	Id1		Min.	Max.	
a	2.0	0	0	0	0	-	If (A)	0.09	0.11	100% or S
b	2.0	100	0	0	0	-	Ia (mA)	1.4	3.2	100%
c	2.0	100	-1 to 0	0	0	-	gm (mA/V)	0.8	-	100%
d	2.0	150	-1.5	0	0	-	Reverse Ig (μ A)	-	1.0	100%
e	2.0	100	-5	0	0	-	Ia (mA)	-	0.2	100%
f	2.0	0	0	10	0	-	Id2 (mA)	0.35	-	100%
g	2.0	0	0	0	10	-	Id1 (mA)	0.35	-	100%
h	2.0	0	0	-10	0	-	Id2 (μ A)	-	0.1	100%
j	2.0	0	0	0	-10	-	Id1 (μ A)	-	0.1	100%
k	2.0	0	0	Diode 2 to -ve fila- ment thro' 0.5 M.A.	0	-	Id2 (μ A)	0.1	-	100%
l	2.0	0	0	0	-	0.1 μ A	Vd1 (V)	0.3	1.7	100%

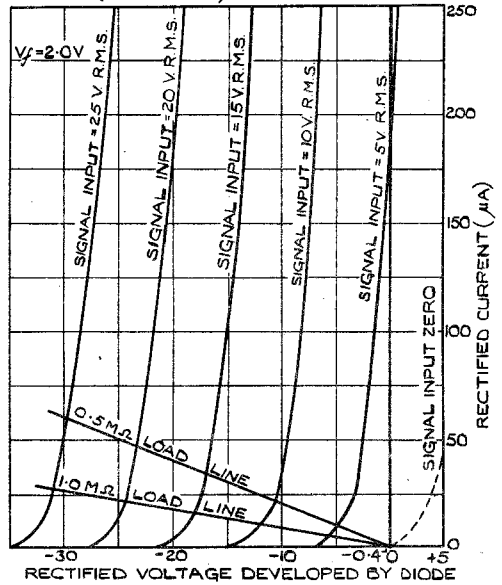
NORMAL OPERATING CONDITIONS

	H.T. LINE 120 V.	H.T. LINE 100 V
ANODE VOLTAGE	85 V.	77 V
ANODE CURRENT	0.35 mA.	0.23 mA
GRID BIAS	-1.5 V.	-1.5 V.
V_g FOR 0.5 μ A I_g	ZERO	ZERO
MUTUAL CONDUCTANCE	0.48 mA/V	0.33 mA/V
ANODE IMPEDANCE	58,500 Ω	76,500 Ω
AMPLIFICATION FACTOR	28	25
ANODE LOAD RESISTANCE	0.1 M. Ω	0.1 M. Ω
GRID RESISTANCE FOR FOLLOWING VALVE	0.25 M. Ω	0.25 M. Ω
COUPLING CAPACITIES	0.05 μ F	0.05 μ F
MAX. VOLTAGE OUTPUT	17.5 V. R.M.S.	15.0 V. R.M.S.

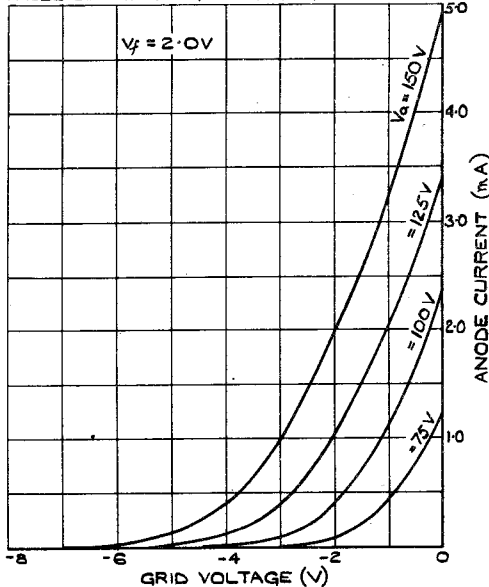
DIODE CURVES FOR HALF WAVE RECTIFICATION
DIODE N#1 (A.V.C. DIODE) SITUATED AT +VE END OF FILAMENT



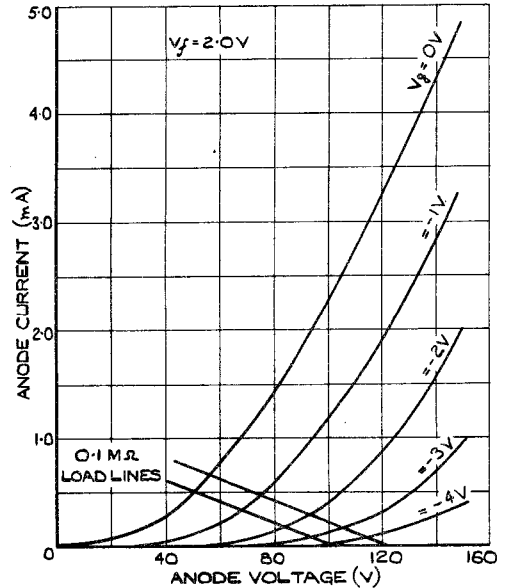
DIODE CURVES FOR HALF WAVE RECTIFICATION
DIODE N#2 (SIGNAL DIODE) SITUATED AT -VE END OF FILAMENT



ANODE CURRENT - GRID VOLTAGE CURVES



ANODE CURRENT - ANODE VOLTAGE CURVES



SOURCE OF CURVES: COSSOR CATALOGUE
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